UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,928	05/31/2005	Kazuhiro Yamada	MATS:060	2470

37013 7590 07/08/2009

ROSSI, KIMMS & McDOWELL LLP.
20609 Gordon Park Square, Suite 150
Ashburn, VA 20147

EXAMINER	
MA, CALVIN	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
07/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/536,928	YAMADA, KAZUHIRO	
	Examiner	Art Unit	
	CALVIN C. MA	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5,7,9,10,15 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2,5,7,9-10,15-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The proposed reply filed on 4/14/2009 has been entered and considered, the prior art Tanaka et al. (US Patent: 6,473,464) is cited for the new ground introduced.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims1-2, 5, 7, 9-10, and 15-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Pub: 2003/0052841) in view of Weitbruch et al. (US Patent: 6,473,464).

As to claims 1 and 9, Tanaka teaches a method as well as a device (i.e. a plasma display system) (see Fig. 1, [121]), displaying an image in which a single field is made of a plurality of subfields weighted with brightness (i.e. the plasma display having variety of subfield, SF1, SF2, …) (see Table 2, Fig. 6) and a plurality of pieces of emission pattern information (i.e. the pattern look up table LUT), which show an emitted state with "1" and a non-emitted state with "0," of a pixel for each subfield, are used for displaying one gradation level (i.e. the subfield coding circuit interact with LUT to select

the correct pattern to display) (see Fig. 6, [124-131]), wherein an average value of gradation levels shown by each of the plurality of pieces of emission pattern information, is equal to one of the gradation levels; and

an average emission rate (APL), which is the plurality of pieces of emission pattern information averaged by each subfield, of any subfield with brightness weight smaller than maximum brightness weight of a subfield (i.e. since the total brightness of the plasma display is a result of all of the subfield in the pixel performing together, the APL is a range of possible value in a continuum of actual display output factors which is tracked by the display system to insure the correct gradation conversation yield the correct subfield setting) (see Fig. 6, [126-129]),

However Tanaka does not explicitly teach having in which an average emission rate thereof is not zero, is equal to or greater than 0.75, Weitbruch teaches in which an average emission rate thereof is not zero, is equal to or greater than 0.75 (i.e. the picture correction algorithm of Weitbruch shows that the video frame in figure 1 where there is a continuum of brightness rate which is adapted with pixel shift in this way the average emission rate clearly is greater than 0.75 in some pixel area of the pictures) (see Fig. 1, 2 and 9, Col 5, Lines 30-60).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the dynamic pixel shifting technique of Weitbruch in the PDP driving system of Tanaka in order to create a motion adjustment compensation for the video picture to provide better display performance (see Weitbruch Col. 2, Lines 10-30).

As to claims 2 and 10, Tanaka teaches wherein a given level of gradation is displayed by timewise changing each of the plurality of pieces of emission pattern information, for one pixel (i.e. since the display of image on a plasma display with subfields is a composition of time based change in a given pixel the level of gradation is naturally a result of timewise changing of the pattern of fields in each pixel which is stored in LUT) (see Fig. 6).

As to claims 5 and 7 Weitbruch teaches wherein a given level of gradation is displayed by spatially arranging each of the plurality of pieces of emission pattern information, for a plurality of adjacent pixels (i.e. the pixel adjustment based on pixel shifting presupposes the emissions pattern being spatially arranged by given level of gradation to create the necessary image improvement) (see Fig. 7-9, Col 5, Lines 30-60).

As to claims 15-16 Tanaka teaches wherein a given level of gradation is displayed by spatially arranging each of the plurality of pieces of emission pattern information, for a plurality of adjacent pixels(i.e. the APL is translated into have a '1' and '0' patterned displayed on the entire plasma display so that the overall gradation is outputted and thus the pattern information is also encapsulated in the LUT which is outputted to the actual display itself) (see Fig. 5, [132-142]).

Response to Arguments

4. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Calvin Ma whose telephone number is (571)270-1713. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571)272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma
July 5, 2009

/Chanh Nguyen/
Supervisory Patent Examiner, Art Unit 2629